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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,071	04/08/2004	Daniel J. Fisher	59554US002	9195
32692	7590	01/12/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			MULLER, BRYAN R	
			ART UNIT	PAPER NUMBER
			3723	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,071

Applicant(s)

FISHER, DANIEL J.

Examiner

Bryan R. Muller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 14, 15, 28-34, 37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) 10-13 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14, 15, 28-34, 37 and 38 is/are rejected.
- 7) ☒ Claim(s) 1 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/25/2005
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Claims 10-13 and 16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/25/2005.

Claim Objections

2. Claim 1 is objected to because of the following informalities: the word "then" in line 6 of claim 1 should be changed to "than". Appropriate correction is required.

3. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 only provides limitations for the mating surface on the abrasive article, however the claims are directed to the conversion pad only, thus the claim does not further limit the independent claim because it does not provide any further limitations for the conversion pad.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 discloses that a non-attachment region forms an attachment that is weaker than the attachment formed by the attachment region. It is unclear how a **non**-attachment region may form any attachment at all.

6. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear if the applicant is intending to claim the conversion pad alone or the combination of the conversion pad and the abrasive article, claim 3 only provides structure for the abrasive article, but it appears that the claim is directed to the conversion pad only.

7. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites the limitation "attachment surface" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is assumed that the word "surface" is intended to be "region" in this limitation.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-7, 14, 15, 28-32, 37 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagano (5,201,785).

10. In reference to claim 1, Nagano discloses a conversion pad (14 or 31 in prior art Fig. 3) for attaching an abrasive article to the back-up-pad (10 or 30 in prior art Fig. 3) of a sanding tool, said conversion pad having an attachment system comprising a first major surface including an attachment region with attachment material for attachment with an associated mating surface, and a non-attachment region along at least a portion of an edge (there is clearly an annular portion around the outer edge of the first major surface that does not have any attachment material) of said first major surface for forming an attachment with the associated mating surface that is weaker (the lack of attachment material will provide no attachment, which is weaker than the attachment between attachment region and the associated mating surface) than the attachment between the attachment region and the associated mating surface, whereby a user can grasp a portion of the abrasive article adjacent the non-attachment region and thereby separate the abrasive article from the first major surface.

11. In reference to claim 2, Nagano further discloses that said attachment system comprises a first major surface of said conversion pad, said conversion pad having a second major surface opposite said first major surface adapted to engage a the sanding tool. Part 15 is adapted to receive and fix a drive shaft (col. 2, lines 67-68) of a sanding tool.

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12. In reference to claim 3, Nagano further discloses that said associated mating surface comprises a first major surface of the abrasive article, said abrasive article having a second major surface opposite said first major surface including abrasive for abrading a work surface.

13. In reference to claim 4, Nagano further discloses that said attachment region comprises a centrally located region of said first major surface and said non-attachment region comprises a continuous edge region extending around the entire perimeter of said first major surface, as discussed supra.

14. In reference to claim 5, Nagano further discloses that said attachment surface comprises a plurality of mechanical fastening elements.

15. In reference to claim 6, Nagano further discloses that said mechanical fastening elements comprise hook-type fastening elements (seen in figures 1 and 3).

16. In reference to claim 7, Nagano further discloses that said attachment region is a circular region covering a majority of said first major surface and said non-attachment region comprises an annular region extending around the entire perimeter of said major surface.

17. In reference to claim 14, Nagano further discloses that said attachment region and said non-attachment region are co-planar.

18. In reference to claim 15, Nagano further discloses that the conversion pad and the abrasive article have substantially the same profile and have aligned outer edges.

19. In reference to claim 28, Nagano discloses a conversion pad (14 or 31 in prior art Fig. 3) for attaching an abrasive article to the back-up pad (10 or 30 in prior art Fig. 3),

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said conversion pad comprising a pad having first and second opposed major surfaces, said first major surface being adapted for engagement with the back-up pad ("sheet fastening member is fixed to the planar annular surface" of the backup pad; lines 6-7 of the abstract) and said second major surface including an attachment surface including attachment material for attaching said conversion pad with the abrasive article and a non-attachment surface along at least a portion of an edge region of said second surface (there is clearly an annular portion around the outer edge of the first major surface that does not have any attachment material), thereby to allow a user to grasp the abrasive article and separate the abrasive article from the conversion pad.

20. In reference to claim 29, Nagano further discloses that said non-attachment region comprises a continuous edge region extending along the entire perimeter of said second surface, as discussed supra.

21. In reference to claim 30, Nagano further discloses that said attachment surface comprises a plurality of mechanical fastening elements.

22. In reference to claim 31, Nagano further discloses that said mechanical fastening elements comprise hook-type fastening elements (seen in figures 1 and 3).

23. In reference to claim 32, Nagano further discloses that said conversion pad is circular and said non-attachment region comprises an annular region extending along the entire perimeter of said second surface.

24. In reference to claim 37, Nagano discloses an abrading tool including a back-up pad (10 or 30 in prior art Fig. 3), a conversion pad (14 or 31 in prior art Fig. 3) connected with the back-up pad (lines 6-7 in the abstract), and an abrasive article (20 or

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40 in prior art Fig. 3) connected with the conversion pad, wherein the back-up pad, the conversion pad and the abrasive article have substantially the same profile (circular) and have aligned outer edges, and further wherein the conversion pad comprises first and second opposed major surfaces, said second major surface including an attachment region including attachment material for attaching said conversion pad with the abrasive article and a non-attachment region along at least a portion of an edge region (there is clearly an annular portion around the outer edge of the first major surface that does not have any attachment material) of said second surface, thereby to allow a user to grasp the abrasive article and thereby separate the abrasive article from the conversion pad.

25. In reference to claim 38, Nagano further discloses that the back-up pad, conversion pad and abrasive article are circular.

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 8, 9, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano (5,201,785) in view of Long et al (6,210,389).

28. In reference to claims 8 and 9, Nagano discloses the attachment system as discussed supra, but fails to disclose that the non-attachment region includes fastening

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elements that have been bent to inhibit attachment of said fastening elements with said associated mating surfaces. Long discloses a fastening system with a lifting region that provides a hook and loop fastening system with an attachment region (52) and a non-attachment region (41) wherein the hook-type fastening elements of the non-attachment region are bent to inhibit attachment of said fastening elements. The attachment system of Long would be more versatile because the attachment material is attached to the entire surface and any desired portion of the hook-type fasteners may be bent to provide a non-attachment region and the hook-type fastening elements are easily bent to inhibit fastening, so it is easy to modify the portion to be non-attaching, thus, any desired portion of the surface may become the non-attachment portion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide one entire surface of the Nagano invention with hook-type fastening elements and to bend the hook-type elements in the region that is desired to be non-attaching (in this case around the entire perimeter of the surface), as taught by Long, to provide any desired portion of the attachment surface as the non-attachment region.

29. In reference to claim 33, the conversion pad of claim 28, as disclosed by Nagano fails to disclose that the non-attachment region includes fastening elements that have been altered to inhibit attachment of the conversion pad with the abrasive pad. Long discloses the fastening system and teaches the advantages of bending the fastening elements, as discussed supra. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide one entire surface of the Nagano

invention with hook-type fastening elements and to bend the hook-type elements in the region that is desired to be non-attaching, as taught by Long, as discussed supra.

30. In reference to claim 34, Nagano further discloses that the conversion pad and the abrasive article have substantially the same profile and have aligned outer edges.

Response to Arguments

31. Applicant's arguments, see applicant's remarks, filed 7/25/2005, with respect to the rejection(s) of claim(s) 1-9, 14, 15, 28-34, 37 and 38 under 35 U.S.C. 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nagano under 35 U.S.C. 102(b) or Nagano in view of Long under 35 U.S.C. 103(a).

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Koltec et al (DE 4339110A1) Lampert (3,522,681) and Takizawa et al (6,186,878) all disclose conversion pads or attachment systems that have similar structure to the claimed conversion pads and attachment systems in the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan R. Muller whose telephone number is (571) 272-


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4489. The examiner can normally be reached on Monday thru Thursday and second Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail III can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BRM BRM
1/4/2006


GEORGE NGUYEN
PRIMARY EXAMINER